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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

REIS, TRAVIS M

ART UNIT PAPER NUMBER

2859

DATE MAILED: 05/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/003,986

Applicant(s)

KALASHNIKOV ET AL.

Examiner

Travis M Reis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 15 is objected to because of the following informalities:

In claim 15, line 4 "collection" should be ---reflecting--- to overcome the insufficient antecedent basis for this limitation in the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-7, 9, 10, 12, 13, 21-25, 27, 28, 30, 31, & 39 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakamura et al. (U.S. Patent 4274358) in view of Salmon et al. (U.S. Patent 5703612).

With reference to claims 1-7, 10, 19, 22-25, & 28, Nakamura et al. disclose in Figures 4 & 5 an instrument pointer illuminating apparatus (10) comprising an instrument pointer (26) with a hub (20a) with a top (X, see Attachment A) and bottom surface (Y, see Attachment A)

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mounted on a spindle (20); a plurality of light sources (24) positioned radially around said spindle (col. 1 lines 60-61) and axially below said pointer (Figure 4) adapted to supply light (L) upward (Figure 4) into said instrument pointer; said instrument pointer including a needle portion (26b) and a light reflecting portion (to the left of axis A), said light reflecting portion being flared outward from said needle portion across said top surface of said hub to substantially cover all of said top surface of said hub (Figure 5), said light reflecting portion having a plurality of polynomial shaped reflective surfaces (36, 38) with a notch portion (35) positioned between said reflective surfaces, the second reflective surface being formed at an angle relative to the first reflective surface to compensate for refraction of light that travels through said notch portion (col. 3 lines 10-19), presenting said internally reflective surfaces adapted to reflect light received from said light sources outward into said needle portion (Figures 4 & 5).

Nakamura et al. do not disclose a gage motor with a gage motor shaft extending therefrom.

Salmon discloses an illuminated pointer for an analog gauge and related method of use and manufacture with a gage motor (32) and gage motor shaft (56) (Figure 3). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to replace the spindle disclosed by Nakamura et al. with the gage motor and gage motor shaft as taught by Salmon in order that the pointer is controllably movable.

With reference to claims 9 & 27, Nakamura et al. disclose a light guide (surface 26a") mounted to said bottom surface of said hub portion adapted to propagate light from said light sources upward into said pointer (Figure 4).

With reference to claims 12, 13, 30, & 31, Nakamura et al. disclose a light collector (12) adapted to focus light from said light sources onto a light reflector (19a) from any angular

position around said gage motor shaft and reflected upward into said pointer (Figure 4).

With reference to claims 21 & 39, Nakamura et al. do not disclose said light sources are light emitting diodes.

Salmon et al. disclose an illuminated pointer for an analog gauge and related method of use and manufacture wherein the light source (44) is an LED (col. 4 lines 32-33). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to replace the light sources disclosed by Nakamura et al. with the LEDs disclosed by Salmon et al. since LEDs & are recognized as well known alternative engineering choices for light sources which will provide the same function, if one is replaced by the other, of providing a source of light.

5. Claims 14-20 & 32-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. & Salmon as applied to claims 1-7, 9, 10, 12, 13, 21-25, 27, 28, 30, 31, & 39 above, and further in view of Beeson et al. (U.S. Patent 5521725).

Nakamura et al. & Salmon disclose all of the instant claimed invention as stated above in paragraph 4 including the reflector is conical and the light beams are focused into parallel beams (Figure 4).

Nakamura et al. & Salmon do not disclose a plurality of astigmatic lenses for focusing the light produced by each light source, whereby in the horizontal plane said lenses focus the light onto an axis coaxial with said gage motor shaft, and in the vertical plane said lenses focus the light into parallel beams.

Beeson et al. discloses an illumination system employing an array of microprisms that uses an astigmatic lens (80) (col. 7 lines 37-39). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to add astigmatic lenses disclosed by Beeson et al. to the light collector in order that the light path will be better

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directly focused.

6. Claims 11 & 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. & Salmon as applied to claims 1-7, 9, 10, 12, 13, 21-25, 27, 28, 30, 31, & 39 above, and further in view of Masuda et al. (U.S. Patent 5320062).

Nakamura et al. & Salmon disclose all of the instant claimed invention as stated above in paragraph 4 but do not disclose each of said light sources include a lens for focusing the light produced by a light source.

Masuda et al. discloses a light source (5) including a lens (Figure 10) for inherently focusing the light produced by the light source (col. 6 lines 1-3). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to add the lens disclosed by Masuda et al. to the light source disclosed by Nakamura et al. & Salmon in order that the light produced by the light source is focused into the pointer.

7. Claims 8 & 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. & Salmon as applied to claims 1-7, 9, 10, 12, 13, 21-25, 27, 28, 30, 31, & 39 above, and further in view of Sugita (U.S. Patent 5878689) & Muramatsu (U.S. Patent 5291851).

Nakamura et al. & Salmon disclose all of the instant claimed invention as stated above in paragraph 4 but do not disclose the top surface of the pointer being coated with a top diffusing material adapted to diffuse light outward through the top surface, or the bottom surface being coated with a material adapted to internally reflect within said needle portion substantially all of the light which hits said bottom surface.

Sugita discloses a pointer for measuring instruments with a coating of light diffusing paint on the top surface (11) of an indicator needle (7) (Figure 7) for enhancing its visibility under low light conditions (col. 5 lines 57-60). Therefore, it would have been obvious to one

with ordinary skill in the art at the time of the invention was made to add the light diffusion paint disclosed by Sugita to the top surface of the needle portion disclosed by Nakamura et al. & Salmon in order to enhance its visibility under low light conditions.

Muramatsu discloses a gauge for an automobile with a reflective fluorescent coating (6) on its pointer (5) for reflecting the light (L') to a driver (Figure 7) (col. 4 lines 35-41). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to add the reflective fluorescent coating disclosed by Muramatsu to the bottom surface of the needle portion disclosed by Nakamura et al. & Salmon in order that the light is reflected to the user.


Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Travis M Reis whose telephone number is (703) 305-4771. The examiner can normally be reached on 8--5 M--F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on (703) 308-3875. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-8160 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Travis M Reis
Examiner
Art Unit 2859



Diego Gutierrez
Supervisory Patent Examiner
Technology Center 2800

tmr
May 15, 2003